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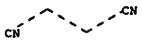

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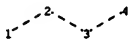


chain nodes :
1 4
ring/chain nodes :
2 3
chain bonds :
1-2 3-4
ring/chain bonds :
2-3
exact/norm bonds :
1-2 2-3 3-4

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS

```
=> d his

     (FILE 'HOME' ENTERED AT 16:07:44 ON 19 FEB 2006)

     FILE 'REGISTRY' ENTERED AT 16:07:49 ON 19 FEB 2006
L1           375 S SUCCINONITRILE
L2             1 S SUCCINONITRILE/CN
L3               STRUCTURE UPLOADED
L4            50 S L3
L5         66602 S 5-7/SZ
L6          2228 S C3N2-C5N2/EA

     FILE 'CAPLUS' ENTERED AT 16:11:41 ON 19 FEB 2006
L7          2546 S L1
L8          1465 S L6
L9             2 S L7 AND L8

     FILE 'REGISTRY' ENTERED AT 16:12:33 ON 19 FEB 2006
L10         3703 S L3 SSS FUL

     FILE 'CAPLUS' ENTERED AT 16:12:41 ON 19 FEB 2006
L11         4057 S L10
L12            3 S L8 AND L11
L13            1 S L12 NOT L9

     FILE 'REGISTRY' ENTERED AT 16:15:13 ON 19 FEB 2006
L14              STRUCTURE UPLOADED
L15           50 S L14
L16        41797 S L14 SSS FUL

     FILE 'CAPLUS' ENTERED AT 16:15:52 ON 19 FEB 2006
L17        24741 S L16
L18            8 S L8 AND L17

=> d ibib abs hitstr total
```

L18 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:99766 CAPLUS
TITLE: STAT3 decoy oligonucleotides and use in the treatment of cancer
INVENTOR(S): Grandis, Jennifer, Rubin; Johnson, Daniel, E.; Leong, Paul
PATENT ASSIGNEE(S): University of Pittsburgh - Of the Commonwealth System of Higher Education, USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006012625	A2	20060202	WO 2005-US26361	20050722

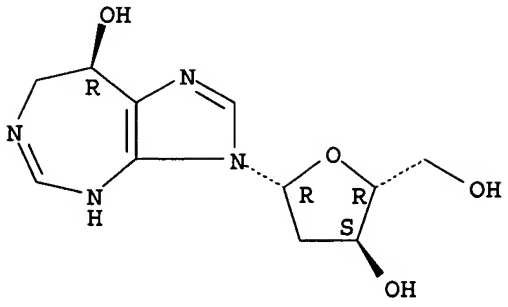
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-590747P P 20040722

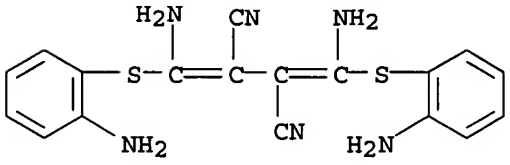
AB A composition is provided that is useful in treating cancers in which STAT3 is activated, such as squamous cell carcinomas including squamous cell carcinoma of the head and neck. The composition comprises an effective amount of a STAT3 decoy and a pharmaceutically acceptable carrier. Also provided are methods of treating such cancers and methods of modulating STAT3 transcriptional activation in a cell.

IT INDEXING IN PROGRESS
IT **53910-25-1**, Pentostatin **109511-58-2**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(STAT3 decoy oligonucleotides and use in treatment of cancer)
RN 53910-25-1 CAPLUS
CN Imidazo[4,5-d][1,3]diazepin-8-ol, 3-(2-deoxy-β-D-erythro-pentofuranosyl)-3,4,7,8-tetrahydro-, (8R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 109511-58-2 CAPLUS
CN Butanedinitrile, bis[amino[(2-aminophenyl)thio]methylene]- (9CI) (CA INDEX NAME)

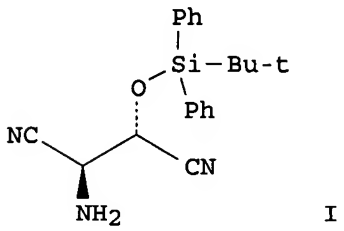


applicant's

L18 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:759869 CAPLUS
DOCUMENT NUMBER: 141:243771
TITLE: Process for the stereoselective synthesis of pentostatin aglycon and pentostatin via cyclization of dinitrile derivatives with amines
INVENTOR(S): Sourena, Nadji; Smoot, James; Sampath, Umashanker
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 21 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004181052	A1	20040916	US 2003-734545		20031212
PRIORITY APPLN. INFO.:			US 2002-432380P	P	20021212

OTHER SOURCE(S): MARPAT 141:243771
GI



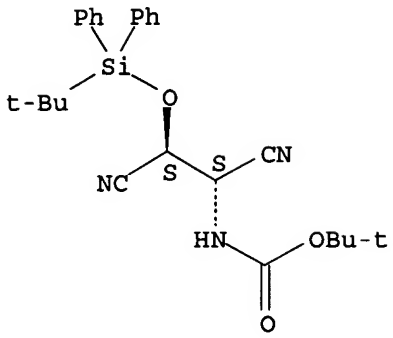
I

AB A novel, scalable and improved process for preparing pentostatin and its analogs via stereoselective cyclization is disclosed. The method comprises the diastereospecific synthesis of the nucleobase from com. available L-dialkyl tartrate. Cyclization of dinitrile derivs., e.g. I, with a number of amines, e. g. allylamine, was performed to examine the practicality of the formation of the imidazole ring via the nucleophilic addition of an amino group to an electrophilic cyano functionality.

IT **749917-70-2P 749917-71-3P 749917-79-1P**
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for stereoselective synthesis of pentostatin aglycon and pentostatin via cyclization of dinitrile derivs. with amines)

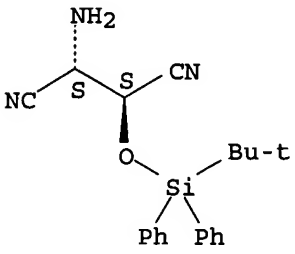
RN 749917-70-2 CAPLUS
CN Carbamic acid, [(1S,2S)-1,2-dicyano-2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



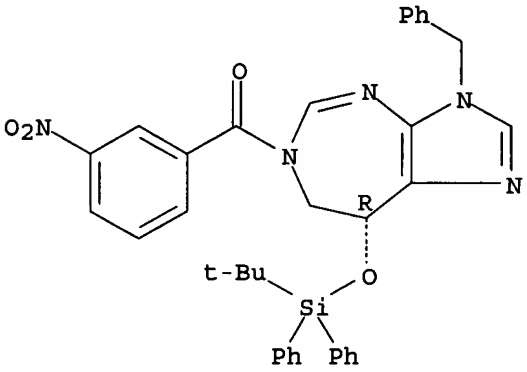
RN 749917-71-3 CAPLUS
CN Butanedinitrile, 2-amino-3-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 749917-79-1 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine, 8-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-3,6,7,8-tetrahydro-6-(3-nitrobenzoyl)-3-(phenylmethyl)-, (8R)- (9CI) (CA INDEX NAME)

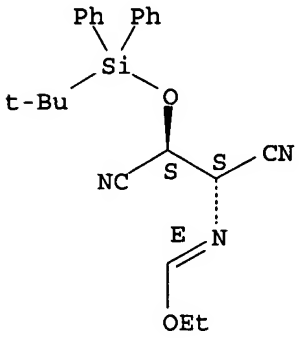
Absolute stereochemistry.



IT **749917-72-4P 749917-81-5P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(process for stereoselective synthesis of pentostatin aglycon and pentostatin via cyclization of dinitrile derivs. with amines)
RN 749917-72-4 CAPLUS

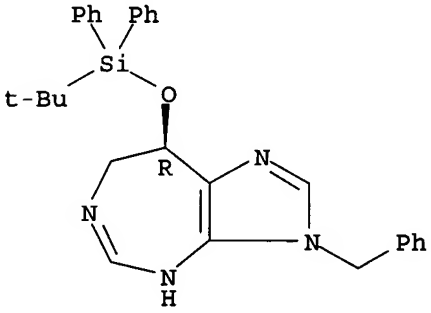
CN Methanimidic acid, N-[(1S,2S)-1,2-dicyano-2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]ethyl]-, ethyl ester, (1E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 749917-81-5 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine, 8-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-3,4,7,8-tetrahydro-3-(phenylmethyl)-, (8R)- (9CI) (CA INDEX NAME)

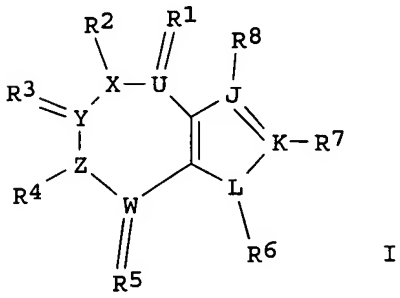
Absolute stereochemistry.



L18 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:33978 CAPLUS
DOCUMENT NUMBER: 140:94236
TITLE: Preparation of ring-expanded nucleosides and nucleotides as virucides and bactericides
INVENTOR(S): Hosmane, Ramachandra S.; Sood, Ramesh K.
PATENT ASSIGNEE(S): Nabi, USA; University of Maryland Baltimore County
SOURCE: U.S., 51 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6677310	B1	20040113	US 1999-295303	19990421
US 2004077564	A1	20040422	US 2003-679429	20031007
PRIORITY APPLN. INFO.:			US 1994-268570	B2 19940706
			US 1995-518278	A3 19950823
			US 1998-96614	B1 19980612
			US 1999-290615	B2 19990413
			US 1999-295303	A3 19990421

OTHER SOURCE(S): MARPAT 140:94236
GI



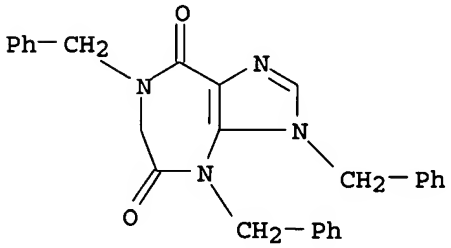
I

AB The present invention relates to compns. comprising analogs of purine nucleosides containing a ring-expanded ("fat") heterocyclic ring, in place of purine, and an unmodified or modified sugar residue, pharmaceutically acceptable derivs. of such compns., as well as methods of use thereof. In particular, these compns. may be utilized in the treatment of certain cancers, bacterial, fungal, parasitic, and viral infections, including, but not limited to, Acquired Immunodeficiency Syndrome (AIDS), hepatitis, Epstein-Barr and cytomegalovirus. The present invention relates to compns. comprising analogs of purine nucleosides containing a ring-expanded ("fat") heterocyclic ring, I (R1, R3, R5 = independently NH, NH2, O, OH, S, SH. NH-alkyl, N-alkyl, O-alkyl, S-alkyl, NH-aryl, O-aryl, S-aryl; R2, R4, R7, R8 = independently , H, alkyl, substituted Ph, heterocycle, aralkyl; R6 = H, alkyl, Ph, substituted Ph, heterocycle, aralkyl, glycosyl; U, X, Y, Z, W, J, K, L = C, N) in place of purine, and an unmodified or modified sugar residue, pharmaceutically acceptable derivs. of such compns., as well as methods of use thereof. In particular, these compns. may be utilized in the treatment of certain cancers, bacterial, fungal, parasitic, and viral infections, including, but not limited to, Acquired Immunodeficiency Syndrome (AIDS) and hepatitis.

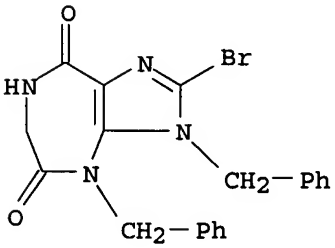
6-Amino-6-methoxycarbonyl-4,5,7,8-tetrahydro-6H-imidazo[4,5,e]-[1,4]-diazepine-5,8-dione was prepared as adenosine deaminase and guanase inhibitor and tested for its anti-retroviral and antibacterial activities.

IT **155568-35-7P 155568-37-9P 155568-38-0P 159530-81-1P 159530-82-2P 162009-82-7P 169317-86-6P 169317-87-7P 216988-27-1P 224789-90-6P 244195-63-9P 398127-00-9P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of ring-expanded nucleosides and as virucides and bactericides)

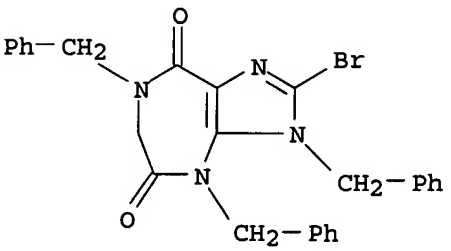
RN 155568-35-7 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-5,8-dione, 3,4,6,7-tetrahydro-3,4,7-tris(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 155568-37-9 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-5,8-dione, 2-bromo-3,4,6,7-tetrahydro-3,4-bis(phenylmethyl)- (9CI) (CA INDEX NAME)

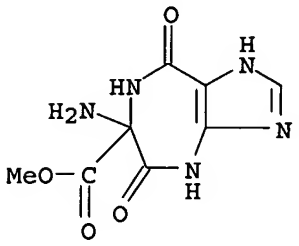


RN 155568-38-0 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-5,8-dione, 2-bromo-3,4,6,7-tetrahydro-3,4,7-tris(phenylmethyl)- (9CI) (CA INDEX NAME)

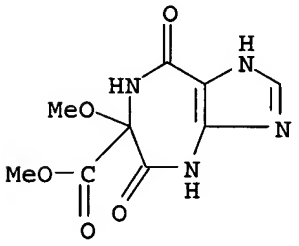


RN 159530-81-1 CAPLUS

CN Imidazo[4,5-e][1,4]diazepine-6-carboxylic acid, 6-amino-1,4,5,6,7,8-hexahydro-5,8-dioxo-, methyl ester (9CI) (CA INDEX NAME)

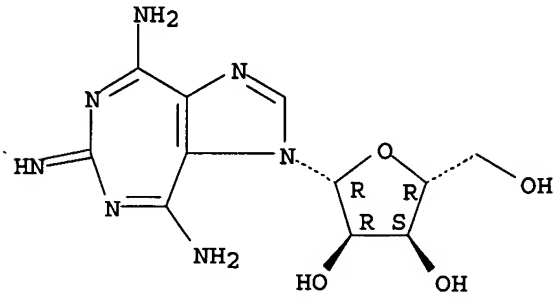


RN 159530-82-2 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-6-carboxylic acid, 1,4,5,6,7,8-hexahydro-6-methoxy-5,8-dioxo-, methyl ester (9CI) (CA INDEX NAME)



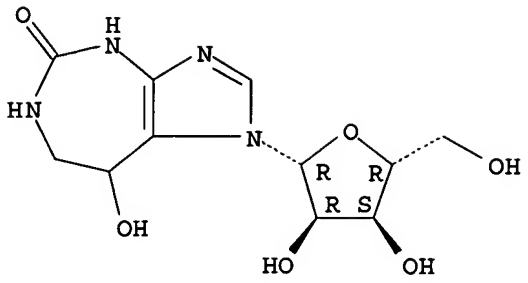
RN 162009-82-7 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8-diamine, 1,6-dihydro-6-imino-1-β-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

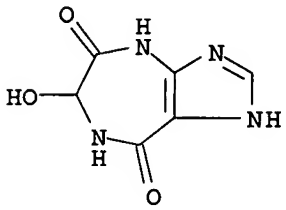


RN 169317-86-6 CAPLUS
CN Imidazo[4,5-d][1,3]diazepin-5(1H)-one, 4,6,7,8-tetrahydro-8-hydroxy-1-β-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

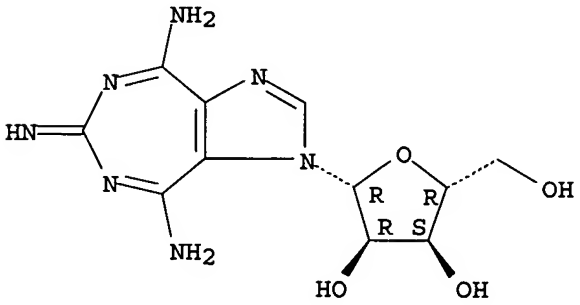


RN 169317-87-7 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-5,8-dione, 1,4,6,7-tetrahydro-6-hydroxy- (9CI) (CA INDEX NAME)



RN 216988-27-1 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8-diamine, 1,6-dihydro-6-imino-1-β-D-ribofuranosyl-, dihydrochloride (9CI) (CA INDEX NAME)

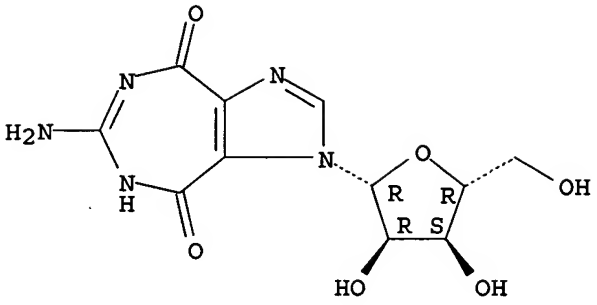
Absolute stereochemistry.



●2 HCl

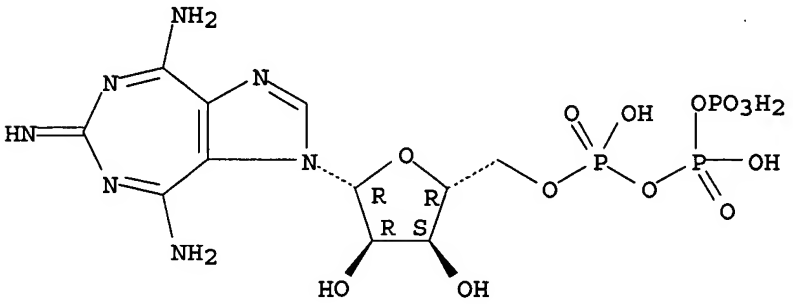
RN 224789-90-6 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8(1H,5H)-dione, 6-amino-1-β-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

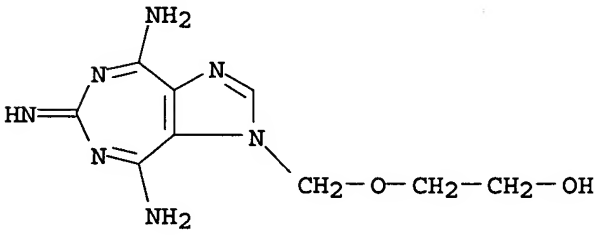


RN 244195-63-9 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,6-diamine, 1,8-dihydro-1-[5-O-[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-β-D-ribofuranosyl]-8-imino- (9CI) (CA INDEX NAME)

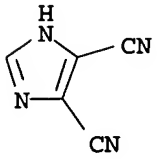
Absolute stereochemistry.



RN 398127-00-9 CAPLUS
CN Ethanol, 2-[(6,8-diamino-4-iminoimidazo[4,5-e][1,3]diazepin-1(4H)-yl)methoxy]- (9CI) (CA INDEX NAME)



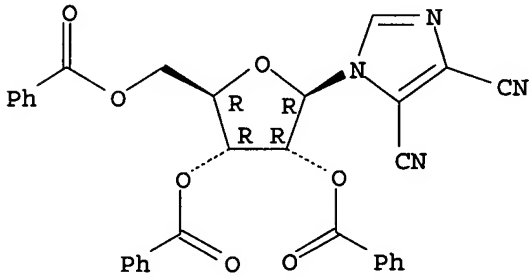
IT **1122-28-7**, 4,5-Dicyanoimidazole
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of ring-expanded nucleosides and as virucides and bactericides)
RN 1122-28-7 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile (9CI) (CA INDEX NAME)



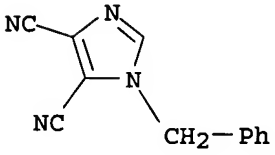
IT **94619-73-5P 123124-90-3P 139173-33-4P**
139173-34-5P 139173-35-6P 139173-36-7P
139173-38-9P 162009-80-5P 162009-81-6P
169317-84-4P 169317-88-8P 169317-91-3P
169317-92-4P 216988-26-0P 216988-28-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of ring-expanded nucleosides and as virucides and bactericides)

RN 94619-73-5 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile, 1-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

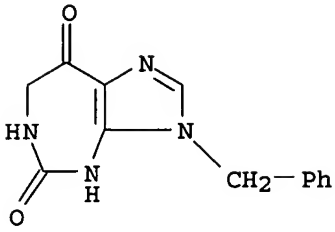
Absolute stereochemistry.



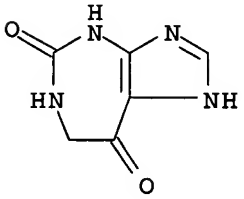
RN 123124-90-3 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile, 1-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 139173-33-4 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 3,4,6,7-tetrahydro-3-(phenylmethyl)- (9CI) (CA INDEX NAME)

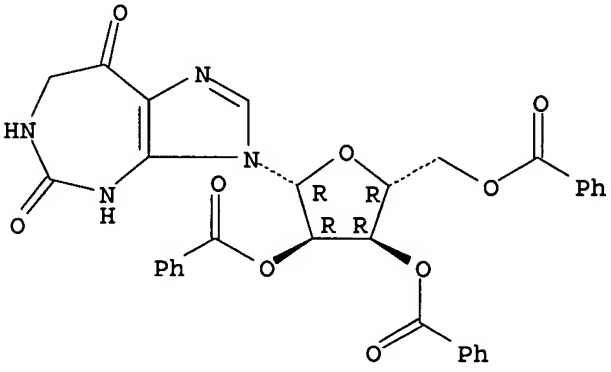


RN 139173-34-5 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 1,4,6,7-tetrahydro- (9CI) (CA INDEX NAME)



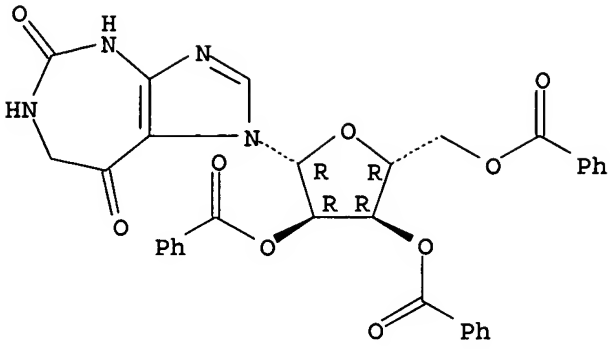
RN 139173-35-6 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 3,4,6,7-tetrahydro-3-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



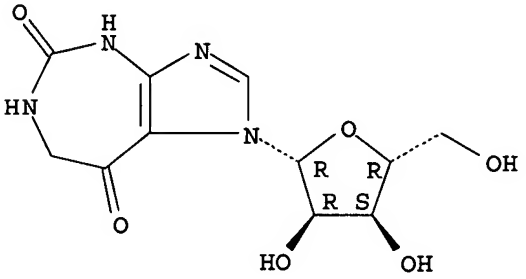
RN 139173-36-7 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 1,4,6,7-tetrahydro-1-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

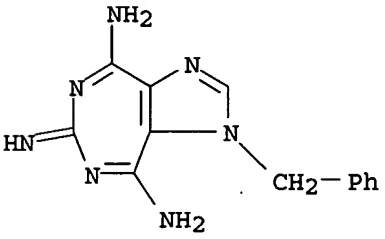


RN 139173-38-9 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 1,4,6,7-tetrahydro-1-β-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

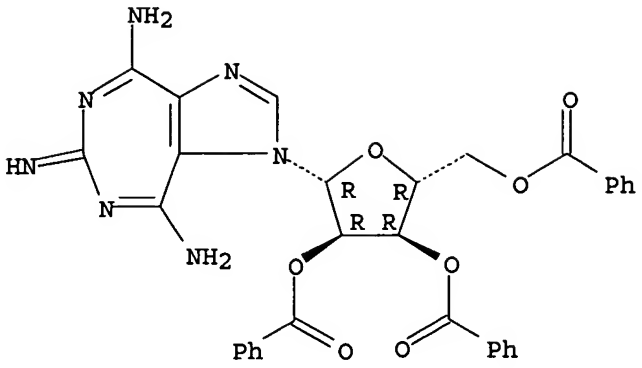


RN 162009-80-5 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,6-diamine, 1,8-dihydro-8-imino-1-(phenylmethyl)- (9CI) (CA INDEX NAME)

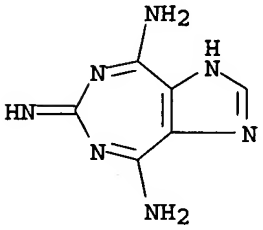


RN 162009-81-6 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8-diamine, 1,6-dihydro-6-imino-1-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 169317-84-4 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8-diamine, 1,6-dihydro-6-imino- (9CI) (CA INDEX NAME)

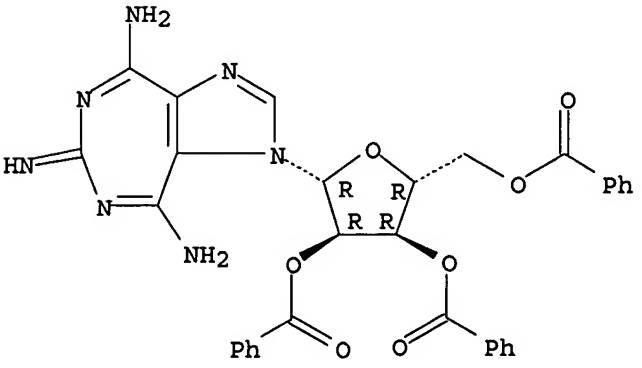


RN 169317-88-8 CAPLUS
CN Methanesulfonic acid, trifluoro-, compd. with 1,6-dihydro-6-imino-1-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)imidazo[4,5-e][1,3]diazepine-4,8-diamine (1:1) (9CI) (CA INDEX NAME)

CM 1

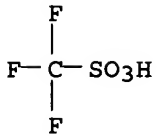
CRN 162009-81-6
CMF C32 H27 N7 O7

Absolute stereochemistry.

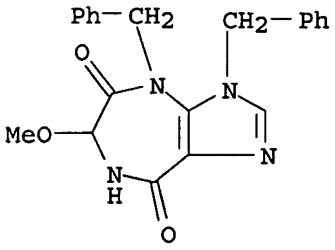


CM 2

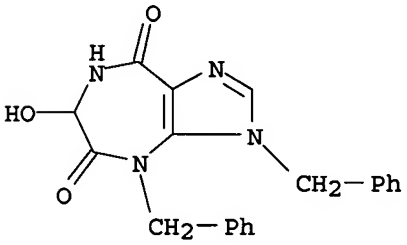
CRN 1493-13-6
CMF C H F3 O3 S



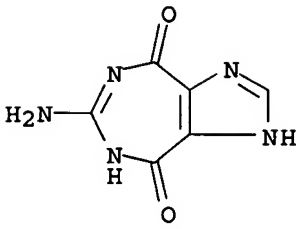
RN 169317-91-3 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-5,8-dione, 3,4,6,7-tetrahydro-6-methoxy-3,4-bis(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 169317-92-4 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-5,8-dione, 3,4,6,7-tetrahydro-6-hydroxy-3,4-bis(phenylmethyl)- (9CI) (CA INDEX NAME)



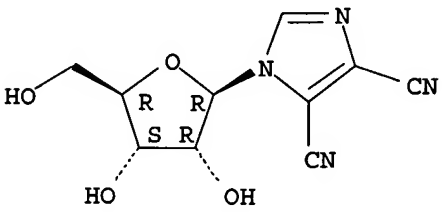
RN 216988-26-0 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8(1H,5H)-dione, 6-amino-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 216988-28-2 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile, 1-β-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:741924 CAPLUS
DOCUMENT NUMBER: 133:305586
TITLE: Methods of inducing cancer cell death and tumor regression
INVENTOR(S): Bishop, Walter R.; Brassard, Diana L.; Nagabhushan, Tattanahalli L.
PATENT ASSIGNEE(S): Schering Corporation, USA
SOURCE: PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000061145	A1	20001019	WO 2000-US9124	20000406
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6316462	B1	20011113	US 1999-289255	19990409
CA 2364675	AA	20001019	CA 2000-2364675	20000406
EP 1165078	A1	20020102	EP 2000-921765	20000406
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000009670	A	20020115	BR 2000-9670	20000406
JP 2003529540	T2	20031007	JP 2000-610478	20000406
NZ 514628	A	20040130	NZ 2000-514628	20000406
AU 783177	B2	20050929	AU 2000-42041	20000406
ZA 2001008258	A	20030108	ZA 2001-8258	20011008

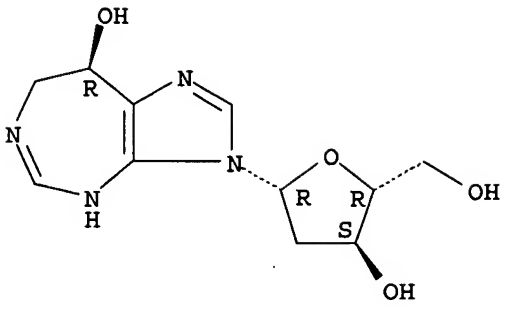
PRIORITY APPLN. INFO.: US 1999-289255 A 19990409
WO 2000-US9124 W 20000406

AB Methods are provided for treating cancer, comprising administering (1) a farnesyl protein transferase inhibitor in conjunction with (2) an addnl. Ras signaling pathway inhibitor to induce cancer cell death and tumor regression.

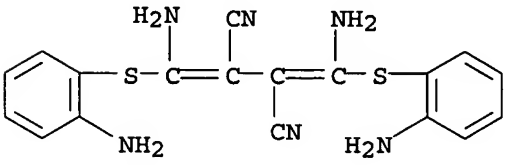
IT **53910-25-1**, Pentostatin **109511-58-2**, U0126
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methods of inducing cancer cell death and tumor regression with farnesyl protein transferase inhibitors in conjunction with Ras signaling pathway inhibitors and use of other antitumor agents)

RN 53910-25-1 CAPLUS
CN Imidazo[4,5-d][1,3]diazepin-8-ol, 3-(2-deoxy-β-D-erythro-pentofuranosyl)-3,4,7,8-tetrahydro-, (8R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 109511-58-2 CAPLUS
CN Butanedinitrile, bis[amino[(2-aminophenyl)thio]methylene]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

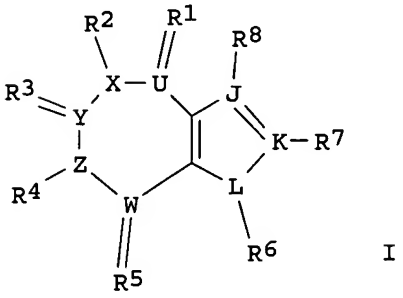
L18 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:785657 CAPLUS
DOCUMENT NUMBER: 130:38644
TITLE: Preparation of ring-expanded nucleosides and nucleotides as virucides and bactericides
INVENTOR(S): Hosmane, Ramachandra; Burns, Barry
PATENT ASSIGNEE(S): University of Maryland, USA; Nabi
SOURCE: U.S., 24 pp., Cont.-in-part of U.S. Ser. No. 268,570, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5843912	A	19981201	US 1995-518278	19950823
US 2004077564	A1	20040422	US 2003-679429	20031007

PRIORITY APPLN. INFO.:

US 1994-268570	B2	19940706
US 1995-518278	A3	19950823
US 1998-96614	B1	19980612
US 1999-290615	B2	19990413
US 1999-295303	A3	19990421

OTHER SOURCE(S): MARPAT 130:38644
GI



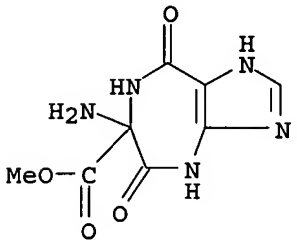
I

AB The present invention relates to compns. comprising analogs of purine nucleosides containing a ring-expanded ("fat") heterocyclic ring, I (R1, R3, R5 = independently NH, NH2, O, OH, S, SH. NH-alkyl, N-alkyl, O-alkyl, S-alkyl, NH-aryl, O-aryl, S-aryl; R2, R4, R7, R8 = independently , H, alkyl, substituted Ph, heterocycle, aralkyl; R6 = H, alkyl, Ph, substituted Ph, heterocycle, aralkyl, glycosyl, ; U, X, Y, Z, W, J, K, L = C, N) in place of purine, and an unmodified or modified sugar residue, pharmaceutically acceptable derivs. of such compns., as well as methods of use thereof. In particular, these compns. may be utilized in the treatment of certain cancers, bacterial, fungal, parasitic, and viral infections, including, but not limited to, Acquired Immunodeficiency Syndrome (AIDS) and hepatitis. 6-Amino-6-methoxycarbonyl-4,5,7,8-tetrahydro-6H-imidazo[4,5,e]-[1,4]-diazepine-5,8-dione was prepared as adenosine deaminase and guanase inhibitor and tested for its anti-retroviral and antibacterial activities.

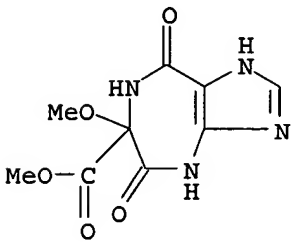
IT **159530-81-1P 159530-82-2P 162009-82-7P**
169317-86-6P 169317-87-7P 216988-27-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of ring-expanded nucleosides and as virucides and bactericides)

RN 159530-81-1 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-6-carboxylic acid, 6-amino-1,4,5,6,7,8-hexahydro-5,8-dioxo-, methyl ester (9CI) (CA INDEX NAME)

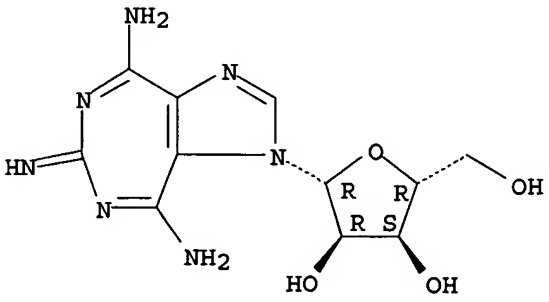


RN 159530-82-2 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-6-carboxylic acid, 1,4,5,6,7,8-hexahydro-6-methoxy-5,8-dioxo-, methyl ester (9CI) (CA INDEX NAME)



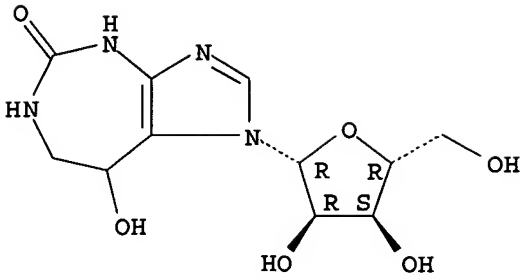
RN 162009-82-7 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8-diamine, 1,6-dihydro-6-imino-1-β-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

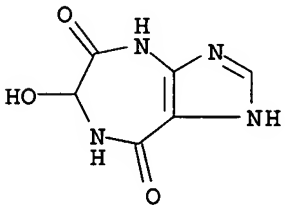


RN 169317-86-6 CAPLUS
CN Imidazo[4,5-d][1,3]diazepin-5(1H)-one, 4,6,7,8-tetrahydro-8-hydroxy-1-β-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

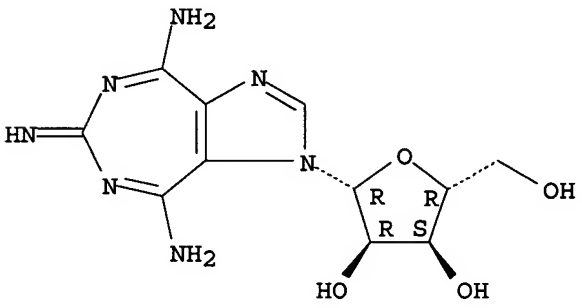


RN 169317-87-7 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-5,8-dione, 1,4,6,7-tetrahydro-6-hydroxy- (9CI) (CA INDEX NAME)



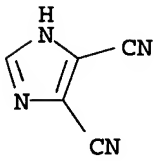
RN 216988-27-1 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8-diamine, 1,6-dihydro-6-imino-1-β-D-ribofuranosyl-, dihydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 HCl

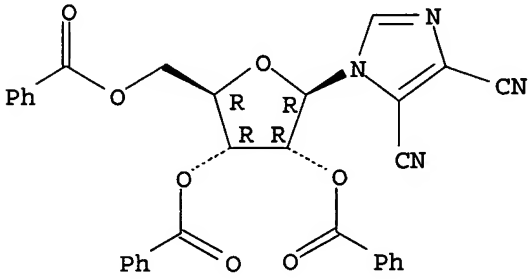
IT **1122-28-7**, 4,5-Dicyanoimidazole
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of ring-expanded nucleosides and as virucides and bactericides)
RN 1122-28-7 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile (9CI) (CA INDEX NAME)



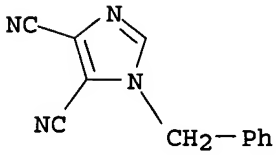
IT **94619-73-5P 123124-90-3P 139173-33-4P**
139173-34-5P 139173-35-6P 139173-36-7P
139173-38-9P 162009-80-5P 162009-81-6P
169317-84-4P 169317-88-8P 169317-91-3P
169317-92-4P 216988-26-0P 216988-28-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of ring-expanded nucleosides and as virucides and bactericides)

RN 94619-73-5 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile, 1-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

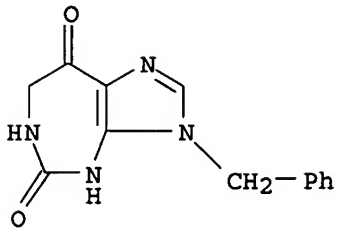
Absolute stereochemistry.



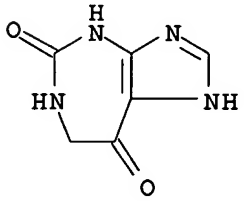
RN 123124-90-3 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile, 1-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 139173-33-4 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 3,4,6,7-tetrahydro-3-(phenylmethyl)- (9CI) (CA INDEX NAME)

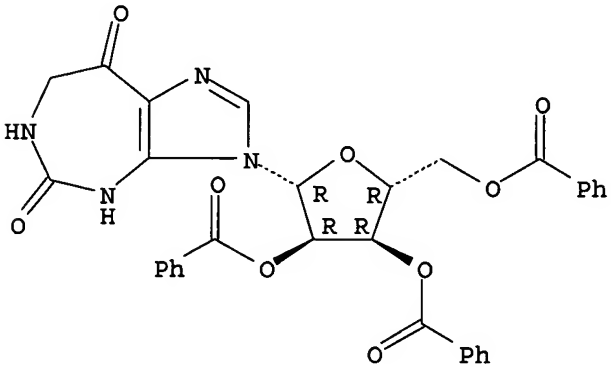


RN 139173-34-5 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 1,4,6,7-tetrahydro- (9CI) (CA INDEX NAME)



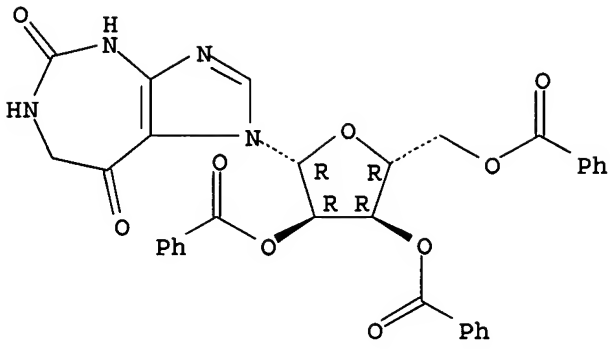
RN 139173-35-6 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 3,4,6,7-tetrahydro-3-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



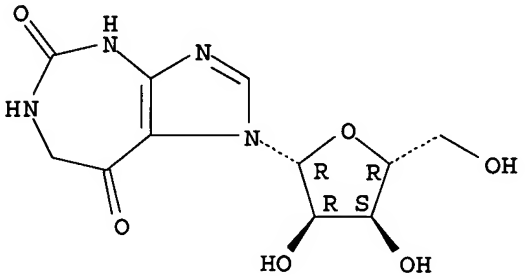
RN 139173-36-7 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 1,4,6,7-tetrahydro-1-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

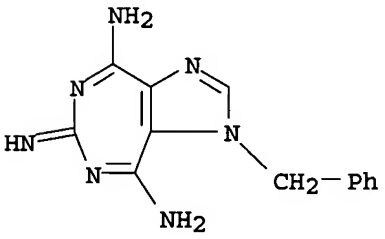


RN 139173-38-9 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 1,4,6,7-tetrahydro-1-β-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

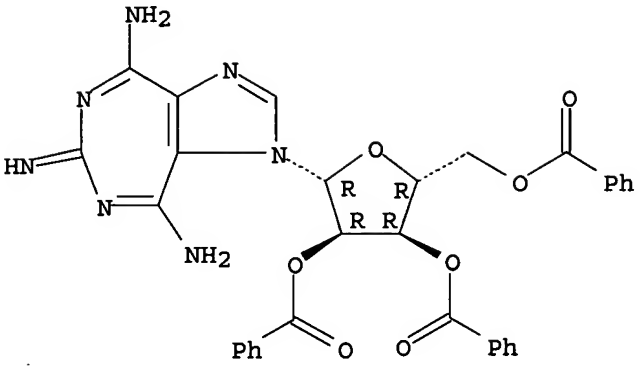


RN 162009-80-5 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,6-diamine, 1,8-dihydro-8-imino-1-(phenylmethyl)- (9CI) (CA INDEX NAME)

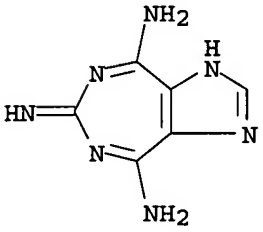


RN 162009-81-6 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8-diamine, 1,6-dihydro-6-imino-1-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 169317-84-4 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8-diamine, 1,6-dihydro-6-imino- (9CI) (CA INDEX NAME)

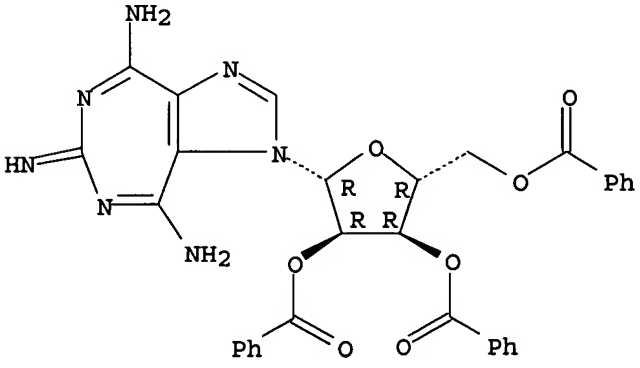


RN 169317-88-8 CAPLUS
CN Methanesulfonic acid, trifluoro-, compd. with 1,6-dihydro-6-imino-1-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)imidazo[4,5-e][1,3]diazepine-4,8-diamine (1:1) (9CI) (CA INDEX NAME)

CM 1

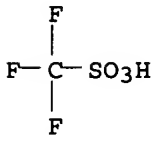
CRN 162009-81-6
CMF C32 H27 N7 O7

Absolute stereochemistry.

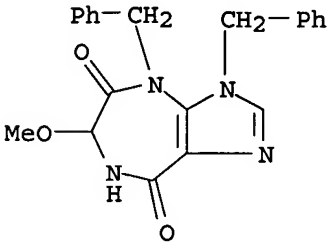


CM 2

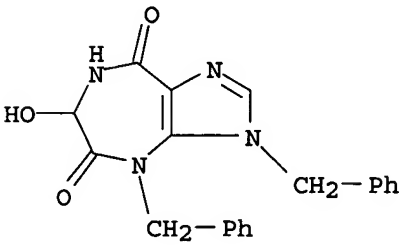
CRN 1493-13-6
CMF C H F3 O3 S



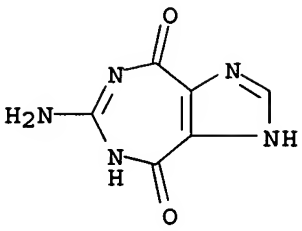
RN 169317-91-3 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-5,8-dione, 3,4,6,7-tetrahydro-6-methoxy-3,4-bis(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 169317-92-4 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-5,8-dione, 3,4,6,7-tetrahydro-6-hydroxy-3,4-bis(phenylmethyl)- (9CI) (CA INDEX NAME)



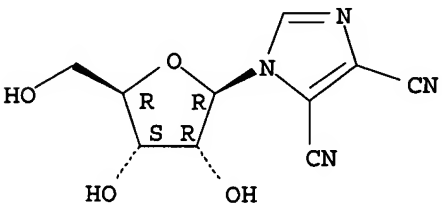
RN 216988-26-0 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8(1H,5H)-dione, 6-amino-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 216988-28-2 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile, 1-β-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

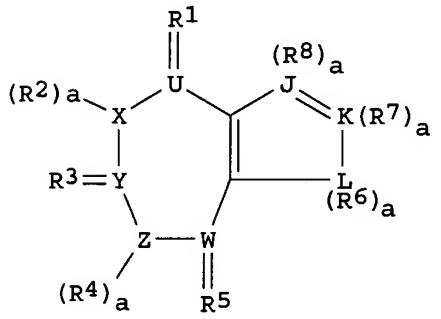
see 328

L18 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:878823 CAPLUS
DOCUMENT NUMBER: 123:286534
TITLE: Preparation of ring-expanded bases, nucleosides and nucleotides as virucides, bactericides, fungicides, and parasiticides.
INVENTOR(S): Burns, Barry; Hosmane, Ramachandra
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9509175	A1	19950406	WO 1994-US10905	19940929
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN				
RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2173116	AA	19950406	CA 1994-2173116	19940929
AU 9478445	A1	19950418	AU 1994-78445	19940929
EP 724587	A1	19960807	EP 1994-929358	19940929
EP 724587	B1	20020904		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
EP 1227103	A2	20020731	EP 2002-1587	19940929
EP 1227103	A3	20021016		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
AT 223428	E	20020915	AT 1994-929358	19940929
PT 724587	T	20030131	PT 1994-929358	19940929
ES 2182847	T3	20030316	ES 1994-929358	19940929

PRIORITY APPLN. INFO.: US 1993-128212 A 19930929
EP 1994-929358 A3 19940929
WO 1994-US10905 W 19940929

OTHER SOURCE(S): MARPAT 123:286534
GI



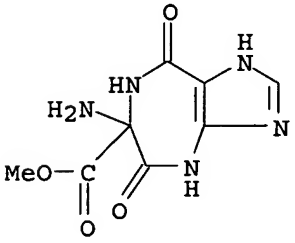
I

AB Title compds. [I; R1, R3, R5 = NH, NH2, O, OH, S, SH, alkoxy, alkylthio, alkylamino, alkylimino, (substituted) aryloxy, arylamino, arylthio,

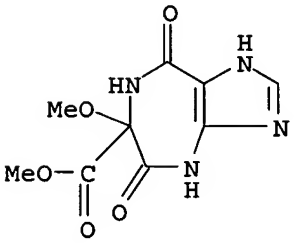
glycosylamino, glycosylimino, etc.; R2, R4, R6, R7, R8 = H, alkyl, (substituted) aryl, aralkyl, glycosyl, etc.; U, X, Y, Z, W, J, K, L = C, N, O, P, S; a = 0, 1] and related compds., were prepared Thus, 4,5-dicyanoimidazole, 1-O-acetyl-2,3,5-tri-O-benzoyl-β-D-ribofuranose, hexamethyldisilazane, Me3SiCl, and F3CSO3H were stirred in MeCN in an ice water bath to give 94% 1-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)-4,5-dicyanoimidazole. The latter was refluxed overnight with guanidine hydrochloride and NaOMe in MeOH to give 40% 4,6,8-triimino-1-β-D-ribofuranosylimidazo[4,5-e][1,3]diazepine. The latter inhibited adenosine deaminase with Ki = 3.85-4 + 10-4 M.

IT **159530-81-1P 159530-82-2P 162009-80-5P 162009-82-7P 169317-84-4P 169317-85-5P 169317-86-6P 169317-87-7P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of ring-expanded bases, nucleosides and nucleotides as virucides, bactericides, fungicides, and parasiticides)

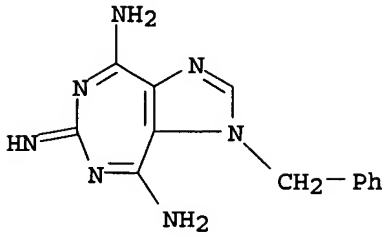
RN 159530-81-1 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-6-carboxylic acid, 6-amino-1,4,5,6,7,8-hexahydro-5,8-dioxo-, methyl ester (9CI) (CA INDEX NAME)



RN 159530-82-2 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-6-carboxylic acid, 1,4,5,6,7,8-hexahydro-6-methoxy-5,8-dioxo-, methyl ester (9CI) (CA INDEX NAME)

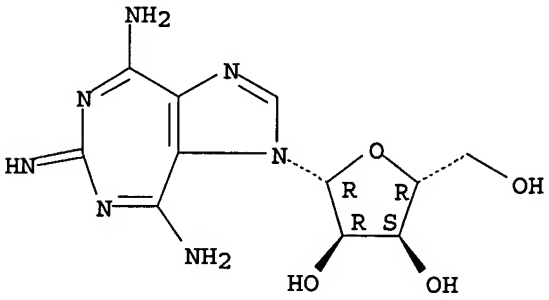


RN 162009-80-5 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,6-diamine, 1,8-dihydro-8-imino-1-(phenylmethyl)- (9CI) (CA INDEX NAME)

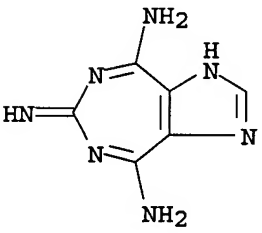


RN 162009-82-7 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8-diamine, 1,6-dihydro-6-imino-1-β-D-ribofuranosyl- (9CI) (CA INDEX NAME)

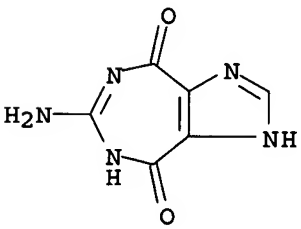
Absolute stereochemistry.



RN 169317-84-4 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8-diamine, 1,6-dihydro-6-imino- (9CI) (CA INDEX NAME)

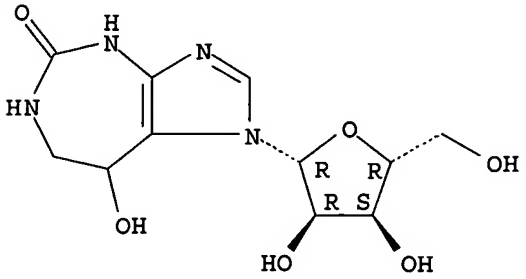


RN 169317-85-5 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8(1H,5H)-dione, 6-amino- (9CI) (CA INDEX NAME)

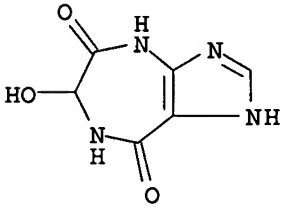


RN 169317-86-6 CAPLUS
CN Imidazo[4,5-d][1,3]diazepin-5(1H)-one, 4,6,7,8-tetrahydro-8-hydroxy-1-β-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

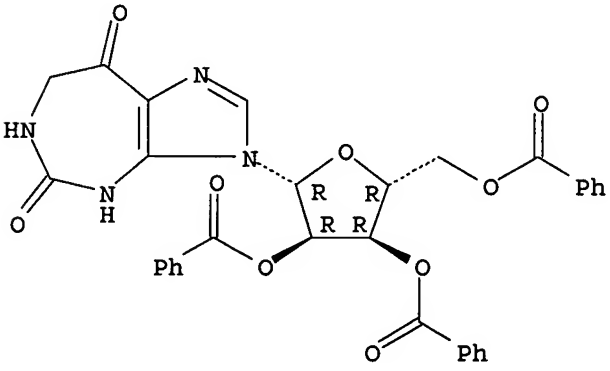


RN 169317-87-7 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-5,8-dione, 1,4,6,7-tetrahydro-6-hydroxy- (9CI) (CA INDEX NAME)



IT **139173-35-6P**
RL: BYP (Byproduct); PREP (Preparation)
(preparation of ring-expanded bases, nucleosides and nucleotides as virucides, bactericides, fungicides, and parasiticides)
RN 139173-35-6 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 3,4,6,7-tetrahydro-3-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

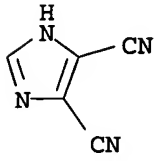
Absolute stereochemistry.



IT **1122-28-7**, 4,5-Dicyanoimidazole
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of ring-expanded bases, nucleosides and nucleotides as virucides, bactericides, fungicides, and parasiticides)

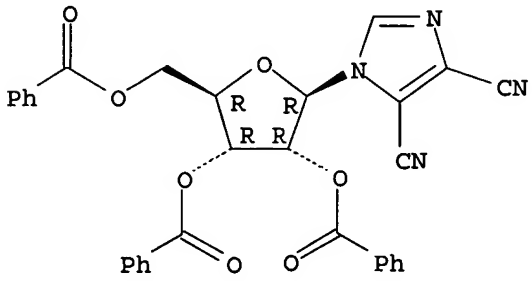
RN 1122-28-7 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile (9CI) (CA INDEX NAME)



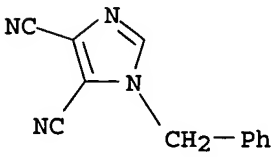
IT **94619-73-5P 123124-90-3P 139173-33-4P**
139173-34-5P 139173-36-7P 139173-38-9P
169317-88-8P 169317-91-3P 169317-92-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of ring-expanded bases, nucleosides and nucleotides as virucides, bactericides, fungicides, and parasiticides)

RN 94619-73-5 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile, 1-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

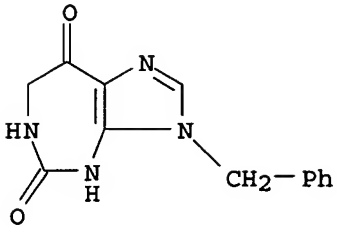
Absolute stereochemistry.



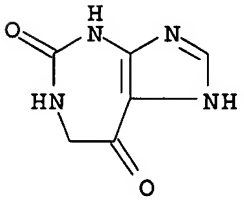
RN 123124-90-3 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile, 1-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 139173-33-4 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 3,4,6,7-tetrahydro-3-(phenylmethyl)- (9CI) (CA INDEX NAME)

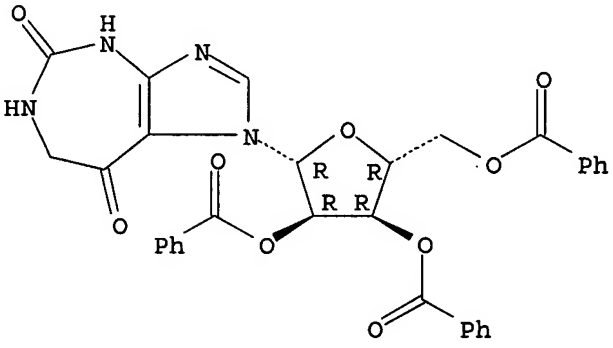


RN 139173-34-5 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 1,4,6,7-tetrahydro- (9CI) (CA INDEX NAME)



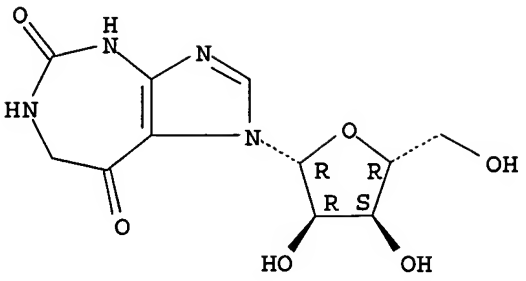
RN 139173-36-7 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 1,4,6,7-tetrahydro-1-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 139173-38-9 CAPLUS
CN Imidazo[4,5-d][1,3]diazepine-5,8-dione, 1,4,6,7-tetrahydro-1-β-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

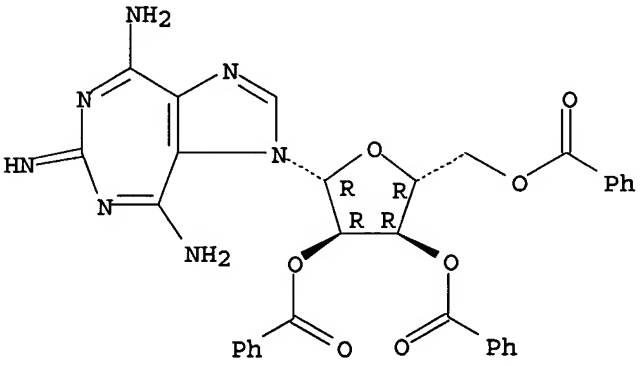


RN 169317-88-8 CAPLUS
CN Methanesulfonic acid, trifluoro-, compd. with 1,6-dihydro-6-imino-1-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)imidazo[4,5-e][1,3]diazepine-4,8-diamine (1:1) (9CI) (CA INDEX NAME)

CM 1

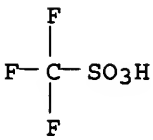
CRN 162009-81-6
CMF C32 H27 N7 O7

Absolute stereochemistry.

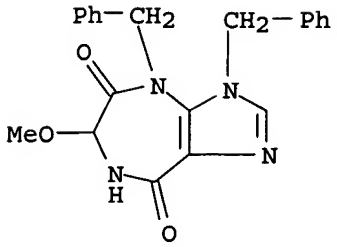


CM 2

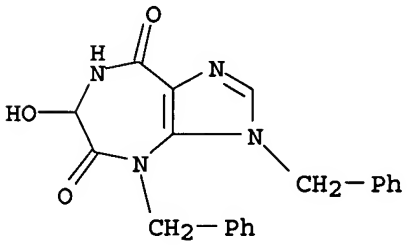
CRN 1493-13-6
CMF C H F3 O3 S



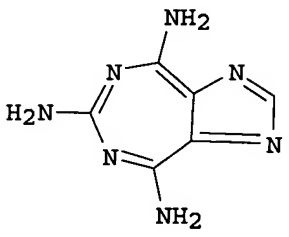
RN 169317-91-3 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-5,8-dione, 3,4,6,7-tetrahydro-6-methoxy-3,4-bis(phenylmethyl)- (9CI) (CA INDEX NAME)



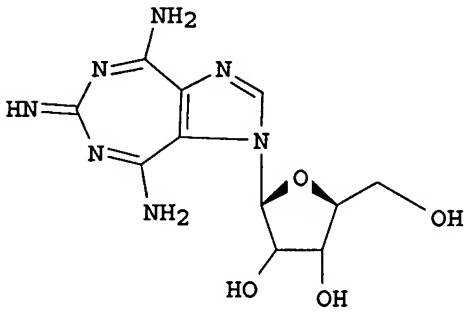
RN 169317-92-4 CAPLUS
CN Imidazo[4,5-e][1,4]diazepine-5,8-dione, 3,4,6,7-tetrahydro-6-hydroxy-3,4-bis(phenylmethyl)- (9CI) (CA INDEX NAME)



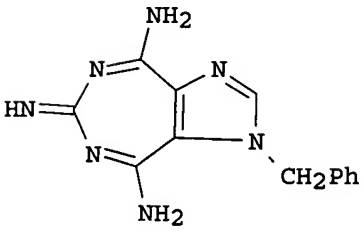
L18 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:273394 CAPLUS
DOCUMENT NUMBER: 122:214413
TITLE: A short synthesis of a novel ring-expanded purine and its nucleoside analog containing the imidazo[4,5-e][1,3]diazepine ring skeleton with multiple amino substituents attached to the 7-membered ring
AUTHOR(S): Wang, Lijuan; Bhan, Anila; Hosmane, Ramachandra S.; Guiles, R. D.
CORPORATE SOURCE: Dep. of Chemistry and Biochemistry, Univ. of Maryland Baltimore County, Baltimore, MD, 21228, USA
SOURCE: Nucleosides & Nucleotides (1994), 13(10), 2307-20
CODEN: NUNUD5; ISSN: 0732-8311
PUBLISHER: Dekker
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 122:214413
GI



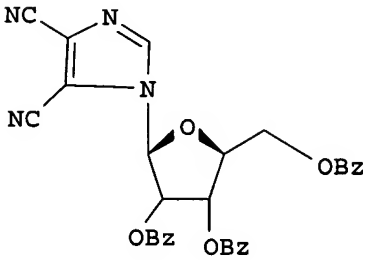
I



II



III



IV

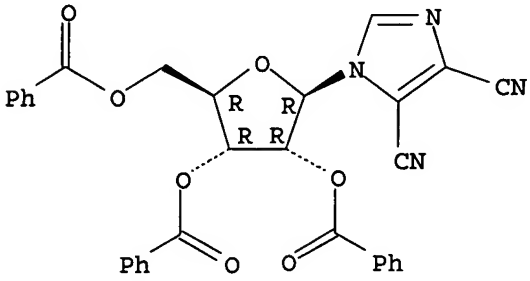
AB The synthesis of 4,6,8-triaminoimidazo[4,5-e][1,3]diazepine (I) and its nucleoside analog (II) are reported. The heterocycle was prepared in a single step by condensation of 4,5-dicyanoimidazole with guanidine. The 5,7-fused ring structure of I was distinguished from the other possible 5:5-fused isomer by preparing the 15N-labeled heterocycle (1*) and exploring its 15N-1H coupling patterns in both 1H and 15N NMR spectra. These spectral patterns also enabled establishment of the triamino tautomeric form of I as assigned. Compound I, a novel ring-expanded ("fat") analog of purine, is anticipated to be planar and aromatic as predicted by mol. modeling. The 1-benzyl analog (III), a protocol for the ribosyl analog II, was similarly prepared from 1-benzyl-4,5-dicyanoimidazole. The nucleoside II was prepared by the modified Vorbrueggen ribosylation of I.

The position of ribosylation was unequivocally established by an unambiguous synthesis of II from condensation of 1-(2',3',5'-tri-O-benzoyl-β-D-ribofuranosyl)-4,5-dicyanoimidazole (IV) with guanidine in a solution of sodium methoxide in methanol. The nucleoside IV was prepared by the Vorbrueggen ribosylation of 4,5-dicyanoimidazole.

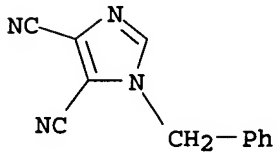
IT **94619-73-5P 123124-90-3P 162009-79-2P 162009-80-5P 162009-81-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(a short synthesis of a novel ring-expanded aminopurine and nucleoside analog)

RN 94619-73-5 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile, 1-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

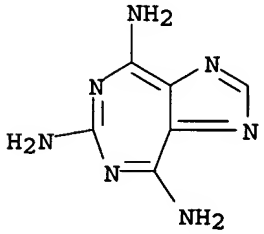
Absolute stereochemistry.



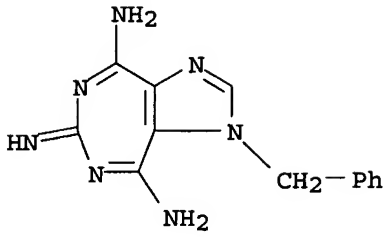
RN 123124-90-3 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile, 1-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 162009-79-2 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,6,8-triamine (9CI) (CA INDEX NAME)

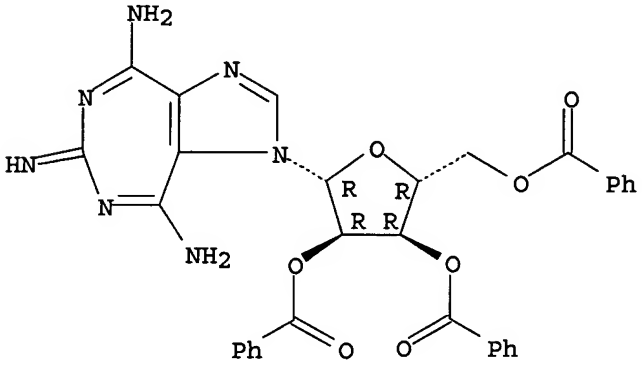


RN 162009-80-5 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,6-diamine, 1,8-dihydro-8-imino-1-(phenylmethyl)- (9CI) (CA INDEX NAME)



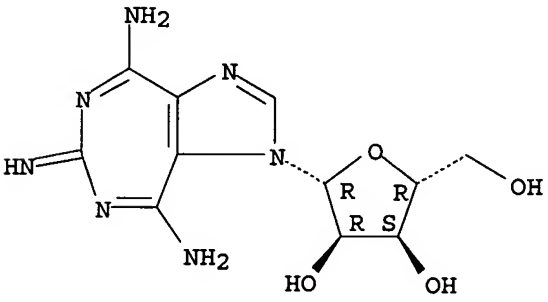
RN 162009-81-6 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8-diamine, 1,6-dihydro-6-imino-1-(2,3,5-tri-O-benzoyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

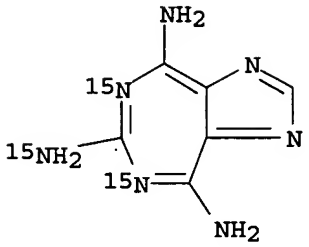


IT **162009-82-7P 162009-83-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(a short synthesis of a novel ring-expanded aminopurine and nucleoside analog)
RN 162009-82-7 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,8-diamine, 1,6-dihydro-6-imino-1-β-D-ribofuranosyl- (9CI) (CA INDEX NAME)

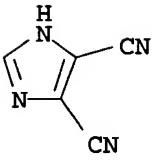
Absolute stereochemistry.



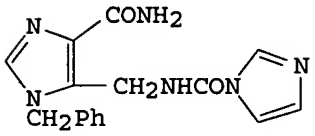
RN 162009-83-8 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,6,8-triamine-N6,5,7-15N3 (9CI) (CA INDEX NAME)



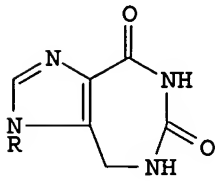
IT **1122-28-7**, 4,5-Dicyanoimidazole
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with guanidine)
RN 1122-28-7 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile (9CI) (CA INDEX NAME)



L18 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:198331 CAPLUS
DOCUMENT NUMBER: 112:198331
TITLE: Imidazo[4,5-e][1,3]diazepine-4,6-dione. A novel xanthine analog
AUTHOR(S): Bridson, Peter K.; Lambert, Steven J.
CORPORATE SOURCE: Dep. Chem., Memphis State Univ., Memphis, TN, 38152, USA
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1990), (1), 173-5
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 112:198331
GI



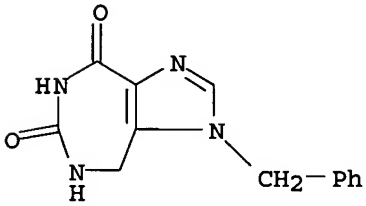
I



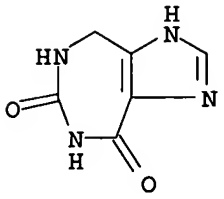
II

AB Imidazolylcarbonylaminomethylimidazolecarboxamide I was treated with Ac2O in anhydrous dioxan to give 40% benzyldihydroimidazodiazepinedione II (R = PhCH), which on hydrogenolysis gave II (R = H).

IT **126921-91-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and debenzylation of)
RN 126921-91-3 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,6(1H,5H)-dione, 7,8-dihydro-1-(phenylmethyl)- (9CI) (CA INDEX NAME)



IT **126921-83-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 126921-83-3 CAPLUS
CN Imidazo[4,5-e][1,3]diazepine-4,6(1H,5H)-dione, 7,8-dihydro- (9CI) (CA INDEX NAME)



IT **123124-90-3**, 1-Benzyl-4,5-dicyanoimidazole
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with ethoxide)
RN 123124-90-3 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile, 1-(phenylmethyl)- (9CI) (CA INDEX NAME)